



CONSTRUCTION EQUIPMENT

VOLVO L220H 3440 - DIESEL ENGINE



Sample No: VCP404561
Oil Type: SHELL ROTELLA T3 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP404561	VCP431636	VCP432426	VCP432412
Sample Date	08 Dec 2023	22 Nov 2023	06 Nov 2023	20 Oct 2023
Machine Hours	6478	6176	5889	5566
Oil Hours	302	287	323	282
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.4	13.4	13.5	13.3
Base Number (BN)	mg KOH/g	6.6	6.7	6.5	6.6
Oxidation (PA)	%	42	43	44	43



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	54	55	56	52
Sulfation (PA)	%	48	48	50	47
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	13	16	13
Sodium	ppm	1	1	1	1
Potassium	ppm	2	2	2	1



WEAR METALS

Iron	ppm	3	3	1	2
Copper	ppm	<1	<1	<1	<1
Lead	ppm	<1	<1	0	<1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	1	1	<1	1
Chromium	ppm	<1	<1	0	<1
Molybdenum	ppm	18	21	8	27
Nickel	ppm	<1	<1	0	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	0	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	2264	2259	2133	2124
Magnesium	ppm	78	94	48	159
Zinc	ppm	1104	1126	1126	1175
Phosphorus	ppm	908	944	904	964
Barium	ppm	11	11	0	0
Boron	ppm	18	22	8	30

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: COVWES
Unique No: 10782380
Signed: Wes Davis
Report Date: 13 Dec 2023



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VOLVO GRAPHS

